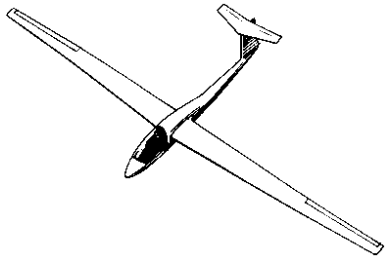
CLARENCE SILENT FLYAIR



BI-MONTHLY NEWSLETTER OF THE CLARENCE SAILPLANE SOCIETY

Nov/Dec '04

PRESIDENT	VICE PRESIDENT	TREASURER
ROMAN PARYZ 684-4177	FRANK CALVARESE 656-9646	TOM KOSZUTA 896-6393
zyrap@buffnet.net	thermol20@aol.com	sliderule@adelphia.net
SECRETARY	NEWSLETTER EDITOR	COMPETITION COORDINATOR
LYN PERRY 655-0775	MARTIN R. TIMM 592-9520	JIM ROLLER 937-6427
PERRYL@ecc.edu	mtimm@a1com.net	Rolj98@aol.com
FLYING SITE COMMITTEE CHAIRMAN	C.S.S. on the World Wide Web	MEMBER AT LARGE
DOMINIC ARADIO 668-1983	http://www.bufflink.net/css/	KURT MANDEL 873-7819
wolfarado9@aol.com		kurt.mandel@verizon.net m

From the Editor

By Marty Timm

Dues are Due!!! Enclosed in members' copies of this newsletter is a membership renewal form for 2005. Please bring this with you to the December meeting with your dues payment for next year or mail it with your dues to Tom Koszuta at the address found on the form.

Your membership and participation in the club is an important part of maintaining access to flying sites. Without the backing of the club, it would be difficult for individual flyers to obtain permission to fly on others' property. Renew now and keep WNYSEF working for you.

Surveys - Thanks to all that filled out the surveys that were included in the last newsletter and sent them in. Your feedback is valued. A summarization of the responses received appears later in this newsletter.

PARTAY!!! Don't forget to come to the Annual WNYSEF Holiday Party at the December 16t^{h} meeting. Expect the usual holiday festivities. (See the flyer for this event later in this newsletter.) If you wish to participate in the gift exchange, bring a wrapped gift related to our hobby with a value of about $5. I hope to see you there!

Upcoming Events - Last but not least - get those winter building projects ready for the February building contest. Lots of fun will be had seeing what folks will be flying in 2005.

November Meeting Jim Moynihan Chinese Auction Report

Lyn Perry reports that the Chinese Auction of Jim Moynihan's hobby paraphernalia raised $95. Many thanks to Mary Moynihan for donating the items to the club. Everything found a good home.

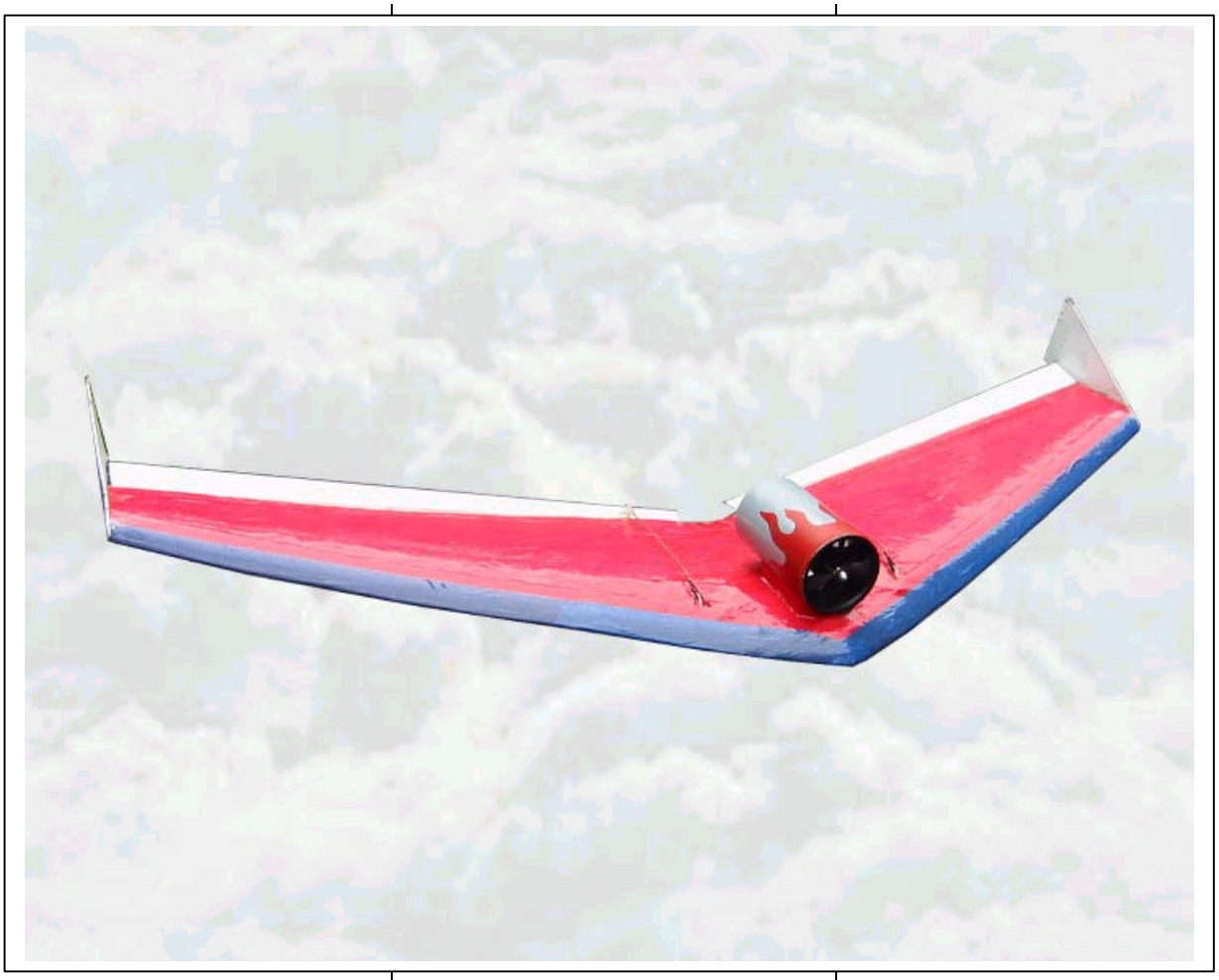
UPCOMING EVENTS

Date	Event
Jan 20, 7:30PM	Meeting at Orchard Park Town Hall - Agenda: Event Calendar for 2005
Feb 17, 7:30PM	Meeting at Orchard Park Town Hall - Agenda: Building Contest
Mar 17, 7:30PM	Meeting at Orchard Park Town Hall - Agenda: Covering/Finishing Contest

Ducted Fan Flying Wing

By Bill Pike

Some club members have expressed interest in a plane that I have been flying over the summer. I have had a lot of fun flying an old Zagi-THL



equipped with a ducted fan. While it doesn't break any speed records, it is a very smooth flyer with acrobatic capabilities ... and it is very quiet.

The airframe was hanging around from when the Zagi was a hot new item. It was a good flyer in light air and took well to thermals. I had used it with a hi-start but it was best suited for light slope flying. Loops and rolls were OK. Sustained inverted flight was difficult. It was replaced on my tarmac with a Metaterra Cutter. The Powerfan 400/6 had been bought for another project and I was looking for something to use as a shroud/tube. One night while I was snacking on some Pringles I saw that the can would fit well as a tube. With a LiPo battery, this made an attractive combination.

The airframe had sustained some nose softness that was repaired by fitting a piece of expanded polystyrene that was also shaped to form a support for the tube. The Pringles can was reduced in length to 2 1/2 times its diameter and covered with medium weight fiberglass. A piece of craft "rubber" sheet lined the tube for a snug fit. The receiver and speed control were fitted into the polystyrene from the bottom and the battery was velcroed to the top of the wing, aft of the tube.

Final weight is 18 ounces with the 3 cell LiPo battery adding another 3 ounces. Powered flight is over 10 minutes with a 1320-mAh battery and can be extended by thermalling. While it is very quiet at full throttle, it can maintain altitude and is more so cruising at reduced power.

Survey Results

In the October/November edition of the newsletter, a member survey was enclosed. Results of the surveys returned are detailed below. (Responses in *Italics* were written in by the respondents, adding to the ones on the survey.)

46 surveys mailed

3 surveys returned
7% participation

I find the indoor business meetings to be:

100% - Useful and interesting
0% - Moderately interesting
0% - Not worth my time and effort

I would attend more meetings if:

33% - *No complaints*
33% - The meetings were held in a different location - *less than 10 miles*
33% - The meetings were held on a different night - *any night but Thursday*
Comments:

- *Happy with all of meeting activities except night when meetings are held.*
- *Travel difficulty (snow, etc.) = don't go*

I would attend more events if:

66% - *No complaints*
33% - The events were in a different location - *less than 10 miles*

I think that our current flying field (ECC South) is:

33% - Too subject to conflicting events
33% - Not geographically convenient
100% - Just fine (also *The best we got)*

I think that we should:

66% - Stay at ECC South
33% - Find another field that we can use for free
33% - *Good luck finding the right place*

The maximum distance I would be willing to drive to a flying field is:

Casual Flying:
33% - 25 miles
66% - Greater than 50 miles

An Event:
33% - 10 miles
33% - 25 miles
33% - 50 miles
33% - Greater than 50 miles

I think that the newsletter:

100% - Is just right as is

My suggestion for the new name of the newsletter is:

- WNYSEF News
- WNY S&E Talk Sheet

Comments (pertinent to the survey):

- *Need training program, not competition.*
- *Bring-in/recruit new people.*
- *Use school contacts to interest kids & parents.*
- *Promote flying on school community property.*
- *How can we find some younger blood?*

Note - questions may have had more than 100% responses if respondents checked more than one box.

Thermal Entry, Escape, and Recognition

You know a thermal is basically rising air. To take advantage of this knowledge, you first need to have an airplane that flies reasonably well "hands off."

Good thermal recognition requires you to detect the slightest rise or fall in our sailplanes. Many a thermal has been missed by pilots who are too heavy-handed on the stick in search of a thermal. Also, an airplane with a tendency to fly in a shallow left or right bank makes recognition more difficult.

I'm not talking about the ability to find a "boomer" thermal but the ability to find the hint of one. Anyone can find the "boomers," but the Sailplane bloodhound can catch the slightest whiff. This often is the difference between first and third place. The edges of thermals are not well-defined. If you can find the edge, you can find maximum lift.

Don't search for thermals constantly. Don't panic if you're in some sinking air. Better pilots will resist the temptation to turn the airplane every four or five seconds. When you come off the line, allow the airplane to fly straight for at least 15 seconds unless you launch right into a thermal. This allows the airplane to cover ground away from you. You launch into the wind anyway. After four or five circles, you don't want the airplane so far downwind that it takes a lot of work to get it back. Thermals are easier to work with if you work them upwind.

I have seen airplanes do several things when they encounter a thermal but will only mention a few of the important ones. A big thermal needs no explanation. Even if you're a new pilot, believe me, you'll know when you're in one.

1) Watch the horizontal stabilizer. It rises when encountering a thermal, more so than the wing, and especially in weak or edge thermals.

2) Watch the wing tips. They often will bobble. The airplane goes through a series of rapid, but small, left and right roll gyrations.
3) Watch for an unexplained turn. Often a thermal will pull an aircraft toward it. This is further evidence of the rotating nature of a thermal.

So when do you launch? Don't launch when the wind is picking up. You probably just missed a thermal. Wait until the wind subsides a little and let the airplane go. Be observant to subtle changes in air temperature. Sometimes, you'll notice a puff of cool air. This is thermal wind. When or if you feel a cool puff, launch the airplane. Be patient! I have a tendency to release my airplane as soon as possible, especially when using a hi-start. If you can, wait a minute; it can really pay off.

Look down field. If you're lucky, your field has trees at the far end. Optimally, a thermal will generate upwind of you. Those downwind at launch time are useless. The trees often will swirl. Straight-line wind is one thing, but when the trees swirl or move haphazardly, they are probably in the midst of a thermal. If that's the case, launch your airplane.

Entry
When you encounter a thermal using what you just learned, ask yourself this: "Is the thermal to your left or right and do you feel lucky?"

Here's what you do. Turn left and begin a nice large arc. If the airplane does not climb, one of two things has occurred: You missed it entirely or it's on the other side. Continue your turn, straighten it out after 270° and begin a right-hand turn. The 270° is important. If you complete the turn and then initiate the right turn, the thermal has probably blown past your airplane and is now behind it. This basic pattern is based on a wind of about 7-12 mph.

The maneuver looks like a figure eight. You also have made efficient use of time and energy. Your first entry into a thermal should be smooth with the wings banked no more than 30°. Entering a thermal is a multi-staged event. The early stages must be smooth and controlled. Once you establish the strength of the thermal, you begin to work it.

Recognition, entry, and establishment should take about 30 seconds to one minute depending on thermal strength.

Escape
Sometimes, no matter how hard you try, you can't stay in the thermal. It happens to the best of us. Don't panic and don't sweat it. Some veteran pilots feel that escaping from a dead thermal is more important than finding one. Here's what you do.

Decide when to get out. This is subjective. I've seen thermal recovery from as little as 20 feet off the ground. Turn the airplane into the wind and fly hands off, as though you were starting from the launch release. I determine a thermal is dead when I cannot gain altitude and have been losing it steadily for 30 seconds. Your mileage may vary.

There is no substitute for practice. Most Sailplane pilots require two to four seasons before they master those techniques.

Don't get discouraged. I jokingly called this sport "The Hiking and Sailing Club." You do a lot of walking.

Sometimes the thermals are just bad. I have no formula for that; it all depends if you're happy just gliding around or not. This is usually when I quit and go home.

Keep the nose clean and your wings level!

from *Miss Information*
Michigan International Soaring Society
Norm Sorensen, editor
Detroit MI

What to do with your left hand while you're flying

By Bob Karasciewwicz

Students typically do little with their left hands while learning to fly. Most of the throttle control is of the on/off type - on for takeoff and flying and off for landing. I'd like to tell you why you should use both controls on the stick.

Let's start with a fun maneuver that uses both rudder and throttle. I call it the "tail wag." Start with a nice, high and straight line (as all maneuvers are started) parallel to the runway. Have the throttle set to about half. As you go past yourself (the center), smoothly raise the throttle to full and let the airplane gain speed until it gets to full speed. Now it's past you and going fast. Pull up to vertical and go straight up.

As soon as your airplane is going straight up, start moving the rudder stick side to side.

Take roughly a second to do this; don't stop until the airplane slows down and almost stops. At this point, push down elevator and resume level flight. Don't forget to lower the throttle to approximately half and make your turn back. Did you see the tail wag? Wasn't that cool?

Do it again. Each pass do the same thing and have fun. Now you are making the airplane do what you want! You're using the rudder and it's a ball. Let's try something a little more complicated. If you practice these things, using the rudder will be just like using the ailerons. You'll be doing it automatically.

The flat turn

Flat turn? How does an airplane turn flat? Everyone knows an airplane has to bank to turn. My instructor told me that when I was just starting out! Relax and everything will be all right. Since you are using the rudder, you can do more things with that beautiful trainer. Let's try one.

First establish a nice high and straight line parallel to the runway. As I said before, most maneuvers start that way. Have the throttle set to approximately half again. Just before the airplane gets to the center (right in front of you), raise the throttle to full. The airplane will gain speed. As the airplane gets to the center and is going fast, slowly go to roughly half rudder (this stick movement should take about a full second). Use the rudder to turn the airplane away from the runway. If you're going from left to right, give left rudder. If it's going from right to left, give right rudder.

As you input the rudder, the airplane will start to do two things: roll and yaw (turn). At this point you will give opposite aileron to prevent the bank (roll). If you gave right rudder, give left aileron. If you gave left rudder, give right aileron. Move the aileron stick enough to keep the wings level. Depending on the wind, you will adjust the roll correction by adding or removing aileron input.

To reiterate: If you're going left to right at full throttle, give approximately half left rudder, and as the airplane starts to bank, use right aileron to keep the wings level. The airplane will be turning but not banking. You will only see the yaw. On aerobatic airplanes, when you give rudder, the airplane will do little or no banking.

This rolling as you give rudder is called roll coupling, and it has a lot to do with the amount of dihedral in the wing. This is not an aerodynamics column so I will not go into why. Hey, my airplane is turning without banking and I don't know what to do next? Sorry, student!

Let's get you out of the flat turn. When you have turned enough, just let the sticks (meaning both the rudder and aileron) go back to neutral. Please don't just let go of the sticks. That "boing" drives me crazy, not to mention it will quickly wear out your transmitter, as it will reduce the accuracy of your stick input.

Practice this stuff and while you are practicing using the rudder don't forget to have fun. There is one danger you may run into while doing flat turns. After doing a 90° flat turn, you will no doubt want to do more. That is, you'll want to complete a flat circle. They are really great and very impressive. Do them, but beware. The flat turn is a high drag maneuver. After all, you are forcing the airplane to go sort of sidewise. This causes more drag and speed goes down, causing less lift. Also, there is even less lift because of the sidewise airflow over the wing. Less lift means you could run out of lift. Running out of lift means a stall. Now don't start worrying. You are nice and high, remember. If you do stall, release the rudder and aileron and return them to neutral, maintain full throttle and point the nose down a bit. As you gain speed, give a little up elevator and you will have full control as before.

In all, it's no big deal. Stalling is part of flying. Actually, there is no need to even go that far. With today's trainers you could do full rudder flat turns and multiple circles before you'd ever get into trouble. Okay, now let's get to the really interesting stuff. We're going to combine all you have just learned and do an amazing maneuver that you've seen and admired ever since you started coming to the field.

The stall turn

You know what to do. That's right, high, straight, half throttle and parallel to the runway. As you pass the center of the field, you will go to full throttle and maintain heading at a high rate of speed. When you come to the place where you would normally turn around you will instead give full up. Go up straight, vertically, and at full throttle. After you have gone a few airplane lengths and your airplane has slowed down, lower the throttle to roughly one-third (keep it well above idle). As your airplane slows, give full rudder and after about a second, enough opposite aileron to keep the aircraft from rolling.

If you catch it just right, your airplane will turn flat within its own wingspan. Now you will be heading straight down. Release the rudder and aileron, raise the throttle to about half, and when you have gained some speed, return to level flight by giving up elevator.

One of the things that can go wrong is the aircraft flops over on its back or front. Recovery is the same. Most likely you were going too slow before giving the rudder. Input the rudder control sooner or don't throttle down as much. If you still can't catch this maneuver, you may want to talk to your instructor about increasing the throw of the rudder. Many trainers have very little rudder throw.

You may not catch the stall turn with a first try. Try it again! Don't be afraid to go back to one of your instructors and ask for help. This can be a little tricky. You will be able to do this within a couple of tries.

If you are using a second airplane for this maneuver, you will probably have less roll coupling with the use of the rudder so be moderate with the use of the aileron corrections. At my club, we invite all soloed pilots to keep coming on training nights. There is plenty to learn after you solo. After all, we (as do most clubs) only require the most rudimentary maneuvers and takeoff and landing to solo. Most of your learning will take place after you solo.

From *Ramblings*
Roxbury Area Model Airplane Club
Michael Ramsey, editor
Flanders NJ

'Twas the Night Before Christmas

'Twas right before Christmas,
And all through the house,
Yes, a creature was stirring,
In the basement ... the louse.

A servo in hand, an expression of glee,
Forgetting entirely to put up the tree.
The ribs of the wing were aligned with great care,
In hopes that the bird would soon soar through the air.

The kids were asleep, all snug in their beds,
With fumes from the glue surrounding their heads.
My husband still at it, the glue almost dry,
Aligning the stab with a glint in his eye.

The kit was quite costly, the radio much more,
He showed me the bill and I slumped to the floor.
He assured me, "My dear, the sport is great fun,"
I just couldn't wait "till the whole thing was done."

I, in my curlers, and "Waldo" below,
(Preparing, I'm sure, for the Toledo Air Show),
Heard from the roof such a terrible clatter,
That I jumped from my bed to see what was the matter.

I threw open the window, and what should appear,
But Santa himself with eight RC reindeer.
He landed quite nicely near the chimney and grating,
He assured me he could, with his Pilot 11 rating.

He spoke not a word,
But went straight to his work,
Helping my husband ...
with the rudder, the jerk.

He did leave some presents for the kids, as you see,
And even some things for my husband and me.
And placing his finger at the side of his nose,
A twinkle in his eye, up the chimney he rose.

Transmitter on,
To his team gave a whistle,
And off they all flew,
Like the down of a schneurle ported pylon racer.

And I heard him exclaim as he banked to the right,
"Flare all your landings and have a good flight."

From *The Jefco Flyer*
Bob Corwin, editor

Slope Soaring at Mohawk Point

Photos Courtesy of Bill Pike

Fred and I went to Mohawk Point on Wednesday. We had a good time with winds of 15 to 20 mph. Fred was able to fly his F16 from Combat Models (it's big) and I took these pictures. He thought you might print some just to prove that he does fly sometimes.
- Bill

Recent Entries for the Logo Contest

Submitted by Andy Luchowski

Submitted by Bill Pike

Photos of Tom Kosuta's Rockets

You are cordially invited to the

WNYSEF Annual Holiday Party

When? **December 16th at 7:30 PM**

Where? **Orchard Park Town Hall**

Featuring:

Fun, Food, and Frivolity!
(Holiday party snack contributions are welcome)

General Business Meeting

Officer Nominations and Elections for 2005

Competition Awards

Show and Tell
(Bring your latest project to show)

$5 Gift Exchange - bring one / get one